HP TFT5110R
Maintenance and Service Guide

October 2002 (First Edition)
Part Number 292490-001

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About This Guide

This maintenance and service guide can be used for reference when servicing the HP TFT5110R.

WARNING: To reduce the risk of personal injury from electric shock and hazardous energy levels, only authorized service technicians should attempt to repair this equipment. Improper repairs can create conditions that are hazardous.

Audience Assumptions

This guide is for service technicians. HP assumes you are qualified in the servicing of computer equipment and trained in recognizing hazard in products with hazardous energy levels and are familiar with weight and stability precautions for rack installations.

Technician Notes

WARNING: Only authorized technicians trained by HP should attempt to repair this equipment. All troubleshooting and repair procedures are detailed to allow only subassembly/module-level repair. Because of the complexity of the individual boards and subassemblies, no one should attempt to make repairs at the component level or to make modifications to any printed wiring board. Improper repairs can create a safety hazard.

WARNING: To reduce the risk of personal injury from electric shock and hazardous energy levels, do not exceed the level of repairs specified in these procedures. Because of the complexity of the individual boards and subassemblies, do not attempt to make repairs at the component level or to make modifications to any printed wiring board. Improper repairs can create conditions that are hazardous.

WARNING: To reduce the risk of electric shock or damage to the equipment:

- **Disconnect power from the system by unplugging all power cords from the power supplies.**
- **Do not disable the power cord grounding plug. The grounding plug is an important safety feature.**
- **Plug the power cord into a grounded (earthed) electrical outlet that is easily accessible at all times.**

CAUTION: To properly ventilate the system, you must provide at least 7.6 cm (3.0 in.) of clearance at the front and back of the server.

CAUTION: The computer is designed to be electrically grounded (earthed). To ensure proper operation, plug the AC power cord into a properly grounded AC outlet only.

NOTE: Any indications of component replacement or printed wiring board modifications may void any warranty.

Where to Go for Additional Help

In addition to this guide, the following information sources are available:

- User documentation
- *Service Quick Reference Guide*
- Service training guides
- Service advisories and bulletins
- QuickFind information services
- Insight Manager software

Integrated Management Log

The server includes an integrated, nonvolatile management log that contains fault and management information. The contents of the Integrated Management Log (IML) can be viewed with Insight Manager.

Telephone Numbers

For the name of your nearest HP authorized reseller:

- In the United States, call 1-800-345-1518.
- In Canada, call 1-800-263-5868.

For HP technical support:

- In the United States and Canada, call 1-800-652-6672.
- Outside the United States and Canada, refer to www.hp.com.

1

Introduction

This chapter provides component identification and serial number location for the HP TFT5110R. Use the following information to locate and identify the components of the TFT5110R.

Front Panel Components

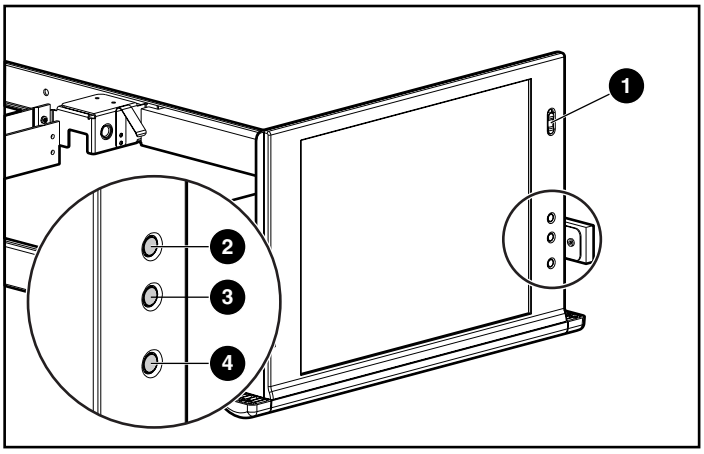

Figure 1-1: Front panel components

Item	Description
1	Power on/off switch
2	OSD scroll up button
3	OSD scroll down button
4	OSD activation button

Serial Number Location for the TFT5110R

You need to provide the serial number to HP when requesting information or ordering spare parts for the TFT5110R. The serial number for the TFT5110R is located on the bottom of the unit.

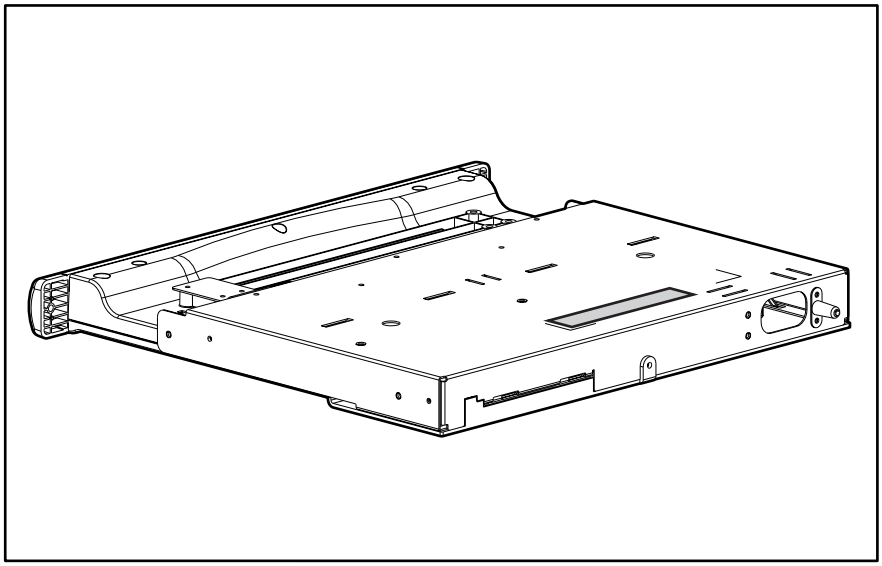

Figure 1-2: Serial number location

2

Illustrated Spare Parts List

This chapter provides an illustrated parts breakdown and a spare parts list for the HP TFT5110R. Refer to Figure 2-1 for the names of referenced spare parts.

Components Exploded View

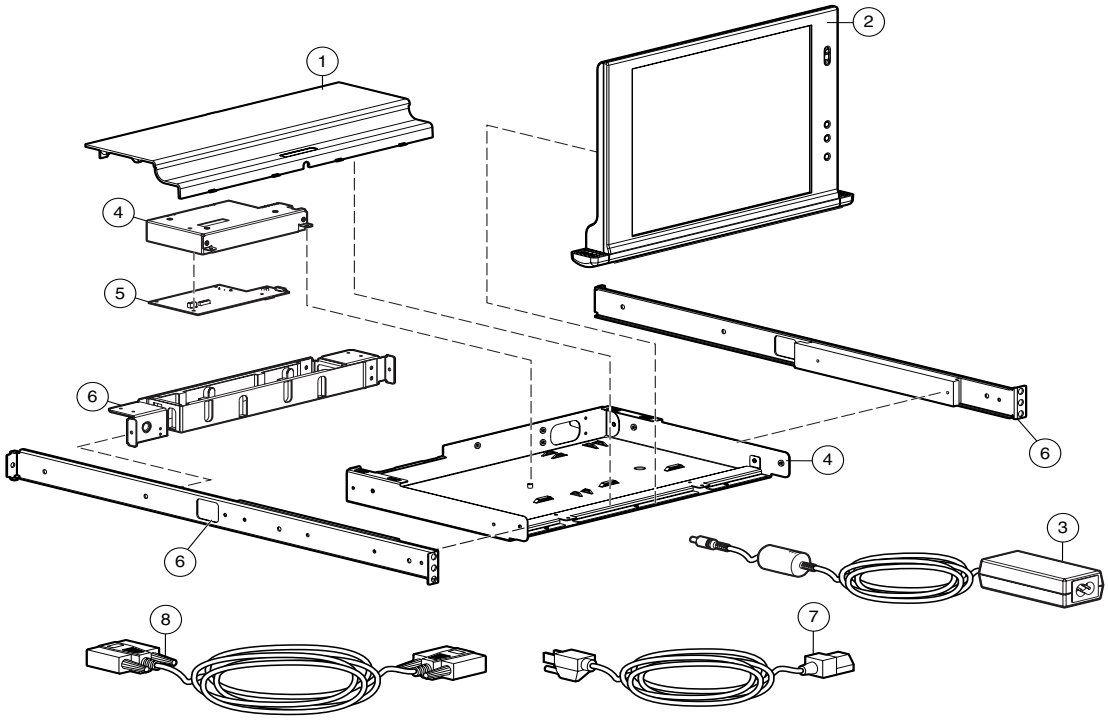

Figure 2-1: TFT5110R

Item	Description	Spare Part Number
1	SPS-PLASTIC KIT, MISC, 5110R	300963-001
2	SPS-MONITOR, TFT, 5110R, 1U	300962-001
3	SPS-ADPTRAC 40W 4PRONG/MINIJCK	218319-001
4	SPS-TRAY, METAL, 5110R	300964-001
5	SPS-BD, CNTRLR	229847-001
6	SPS-RACKMOUNT KIT, 5110R	300965-001
7	SPS-CA, AC LINE, C5-C14, ADAPTER	192514-001
8	SPS-CA, VGA, MALE-MALE, 9FT	238729-001
9	SPS-CORD, AC PWR, 10', BLK*	255135-001
	SPS-CORD, AC PWR, 10', BLK-EURO*	255135-021
	SPS-CORD, AC PWR, 10', BLK-UK*	255135-031
	SPS-CORD, AC PWR, 10', BLK-IT*	255135-061
	SPS-CORD, AC PWR, 10', BLK-SI*	255135-111
	SPS-CORD, AC PWR, 10', BLK-JP*	255135-291

* Not shown

3

Removal and Replacement Procedures

This chapter provides guidance for removing and replacing spare parts for the TFT5110R. Before beginning these procedures, be sure to turn off the power to the display and disconnect the power cable from the power source.

IMPORTANT: As you disassemble the TFT5110R, be sure to place the screws in a safe place and separate them according to their groupings.

After completing all the necessary removal and replacement procedures, power on the TFT5110R to verify that all of the components are operating properly.

Replaceable Spare Parts

The TFT5110R contains the following replaceable parts:

- SPS-PLASTIC KIT, MISC, 5110R 300963-001
  - Rear cover
- SPS-MONITOR, TFT, 5110R, 1U 300962-001
- SPS-ADPTRAC 40W 4PRONG/MINIJCK 218319-001
- SPS-TRAY, METAL, 5110R 300964-001
- SPS-BD, CNTRLR 229847-001
- SPS-RACKMOUNT KIT, 5110R 330965-001
  - Mounting rails w/slides
  - Cable management arm assembly
- SPS-CA, AC LINE, C5-C14, ADAPTER 192514-001
- SPS-CA, VGA, MALE-MALE, 9FT 238729-001
- SPS-CORD, AC PWR, 10’, BLK 255135-XXX

Tools Required

- Phillips screwdriver
- T-15 Torx driver
- Cutting tool for tie wraps

SPS-PLASTIC KIT, MISC, 5110R 300963-001

Figure 3-1: Rear cover

Removing the Rear Cover

To remove the rear cover:

1. Rotate the monitor to an upright position.
2. Remove the rear screw (1), securing the rear cover to the metal tray.
3. Slide the rear cover back (2) and rotate it out of position (3).

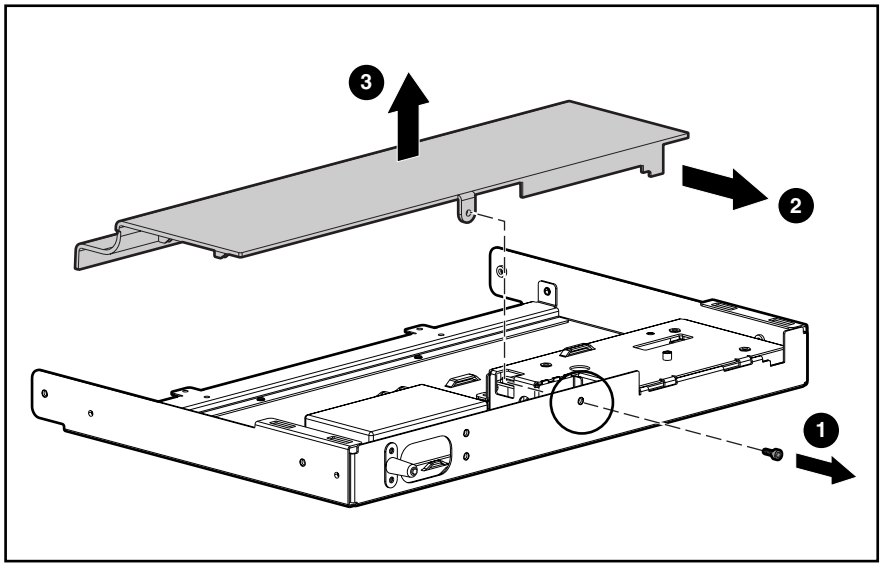

Figure 3-2: Removing the rear cover

To replace the rear cover, reverse the above procedure.

SPS-MONITOR, TFT, 5110R, 1U 300962-001

Figure 3-3: Monitor

To remove the monitor:

1. Remove the rear cover.
2. Remove the screw securing the grounding clip and cable to the metal controller cover.

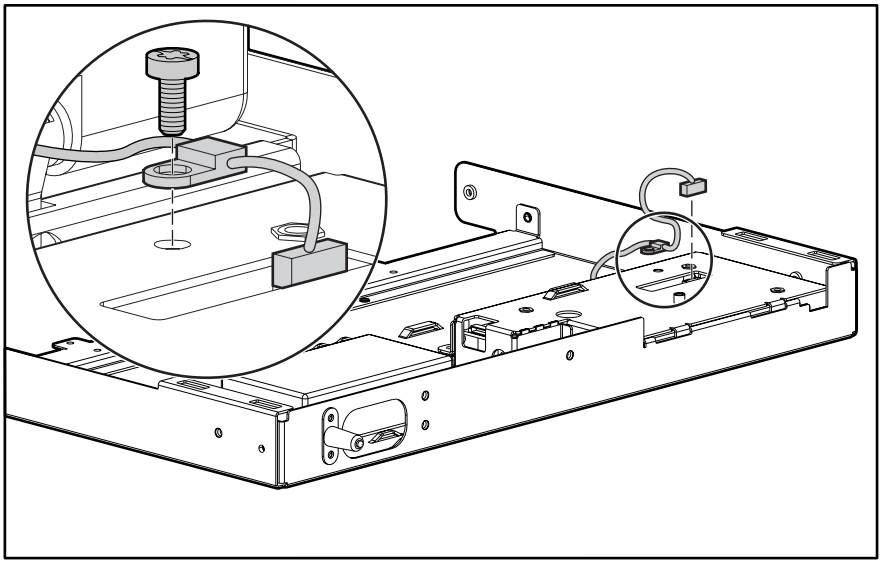

Figure 3-4: Removing the grounding clip

3. Unplug the three cables connecting the monitor to the controller board.

WARNING: Do not pull on the exposed wires. Pull only on the plastic shroud connectors attached to the wires.

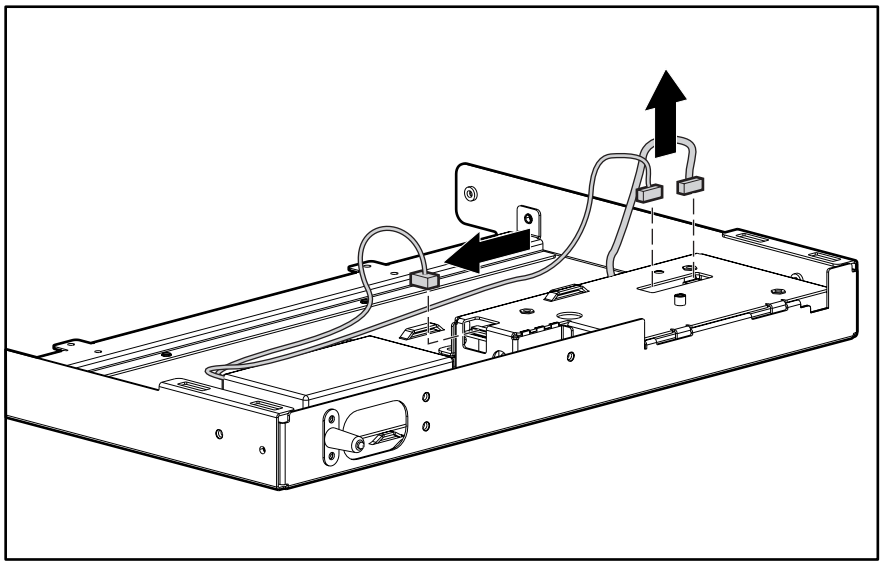

Figure 3-5: Disconnecting the cables

4. Cut the tie wrap securing the cables to the metal tray.
5. Remove the four screws (1) securing the monitor to the metal tray, and then remove the monitor (2).

NOTE: The cables attached to the monitor are not shown in the figure below.

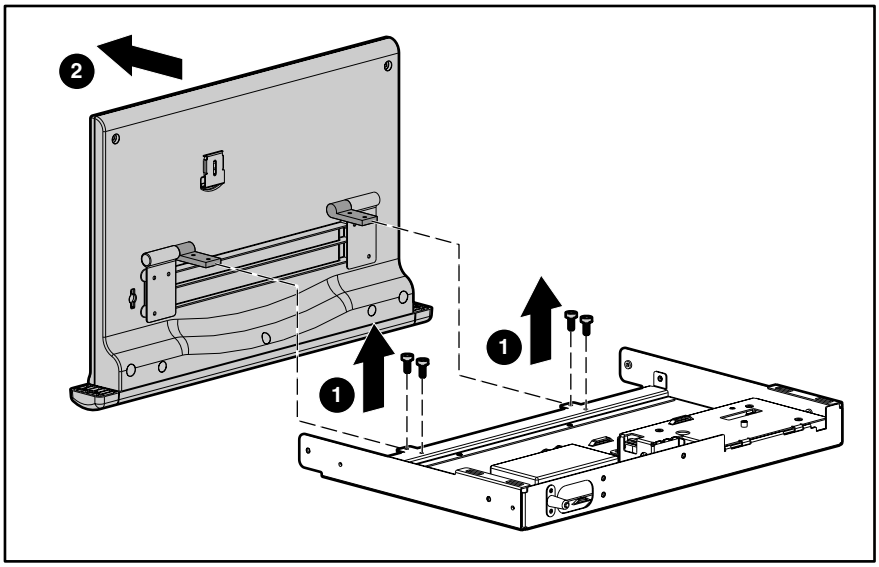

Figure 3-6: Removing the screws securing the monitor

To replace the monitor, reverse the above procedure.

SPS-ADPTRAC 40W 4PRONG/MINIJCK 218319-001

Figure 3-7: AC brick

Removing the AC Brick

To remove the AC brick:

1. Disconnect all cables from their source.
2. Remove the rear cover.
3. Unplug the AC brick connector from the controller board and lift the brick off of the Velcro pad.

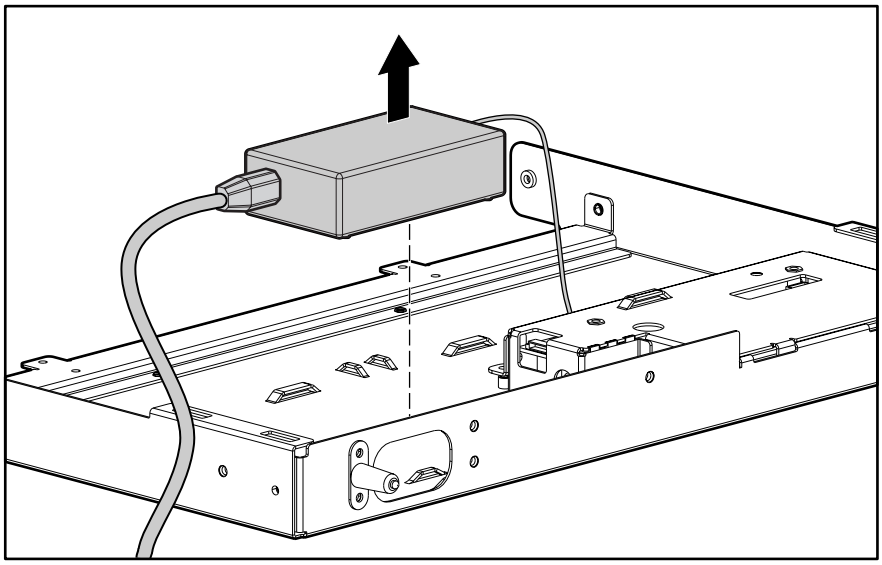

Figure 3-8: Removing AC brick

IMPORTANT: Be sure the AC brick is properly located on the Velcro pad so that the rear cover can be installed.

To replace the AC brick, reverse the above procedure.

SPS-TRAY, METAL, 5110R 300964-001

Figure 3-9: Metal tray and metal controller cover

SPS-BD, CNTRLR 229847-001

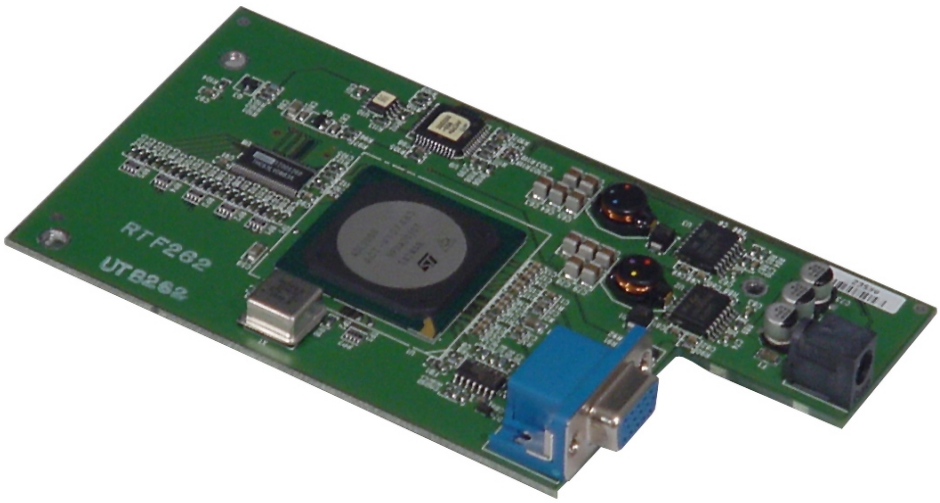

Figure 3-10: Controller board

Removing the Metal Controller Cover and Controller board

To remove the metal controller cover:

1. Remove the rear cover.
2. Remove the AC brick.
3. Remove the screw securing the grounding clip to the metal controller cover.
4. Disconnect all cables from their source, except for the VGA cable.
5. Remove the two screws securing the metal controller cover to the metal tray.

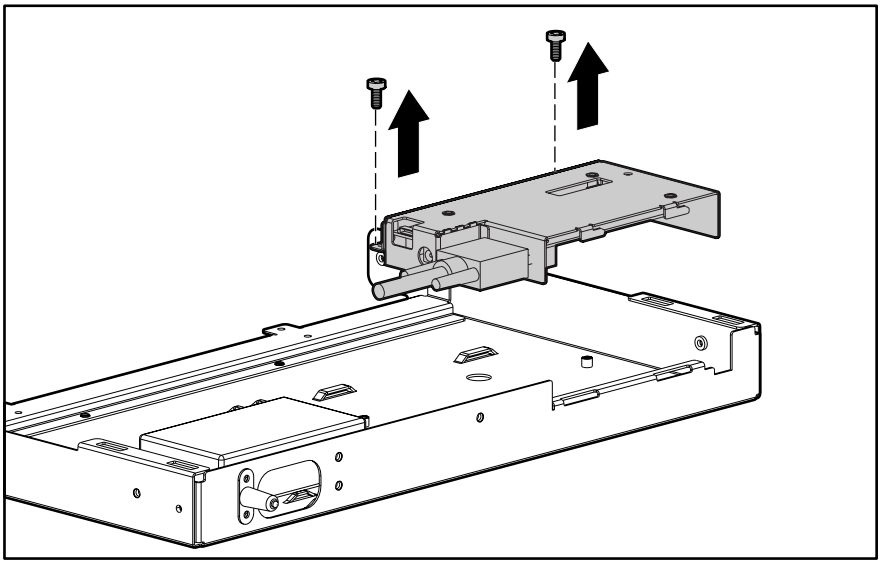

Figure 3-11: Removing screws from metal controller cover

6. Slide the metal controller cover (1) and lift it straight out (2).

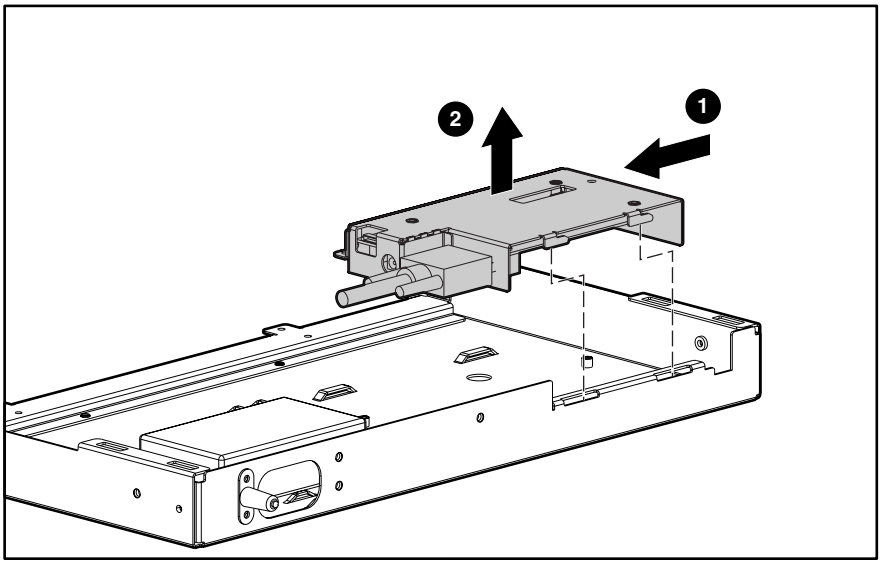

Figure 3-12: Removing metal controller cover

7. Unscrew the VGA cable.
8. Remove the two screw locks from the VGA cable connector.
9. Remove the three screws securing the controller board to the metal controller cover.

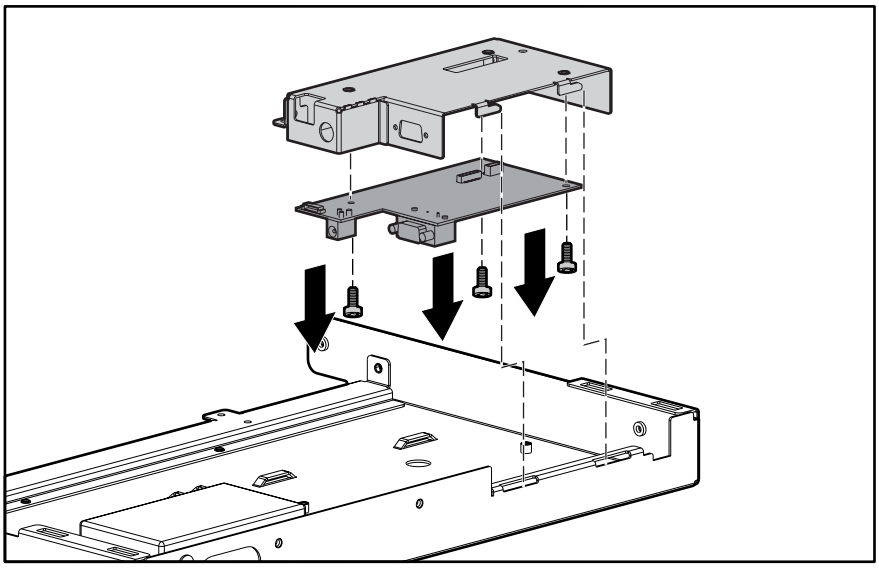

Figure 3-13: Removing screws from metal controller cover

10. Remove the controller board from the metal controller cover.

To replace the metal controller cover and controller board, reverse the above procedure.

SPS-RACKMOUNT KIT, 5110R 300965-001

Figure 3-14: Mounting rails w/slides and cable management arm assembly

Item	Description
1	Mounting rails w/slides
2	Cable management arm assembly

Removing the Cable Management Arm Assembly

To remove the cable management arm assembly:

1. Disconnect all cables from their source.
2. Unthread the cables from the cable management arm.
3. Remove the two screws securing the cable management arm to the rear of the metal tray.

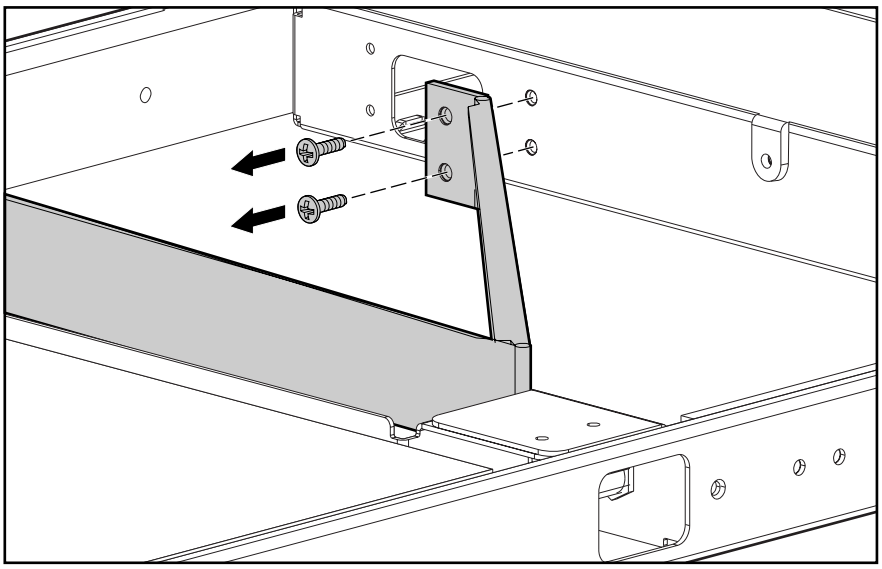

Figure 3-15: Removing the cable management arm

4. Remove the screw (1) securing the cable management arm brace to the rail (on each side), and remove the brace assembly (2).

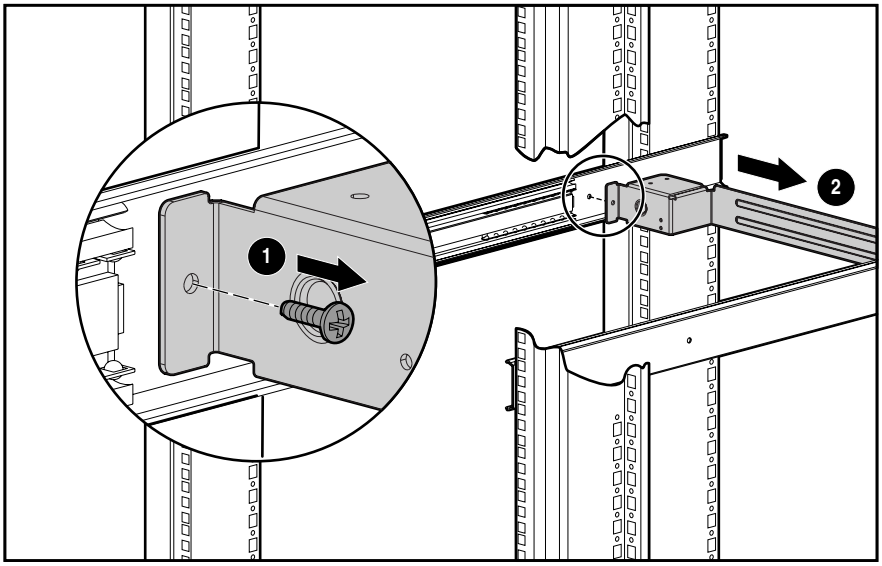

Figure 3-16: Removing the cable management arm brace

To replace the cable management arm assembly, reverse the above procedure.

Removing the Mounting Rails w/Slides

IMPORTANT: You must remove the cable management arm assembly and the TFT5110R before removing the mounting rails w/slides.

To remove the mounting rails w/slides:

1. Remove the screw (1) securing the mounting rails w/slides to the rear of the rack.
2. Remove the two screws (2) securing the mounting rails w/slides to the front of the rack.
3. Remove the mounting rails w/slides from the rack.

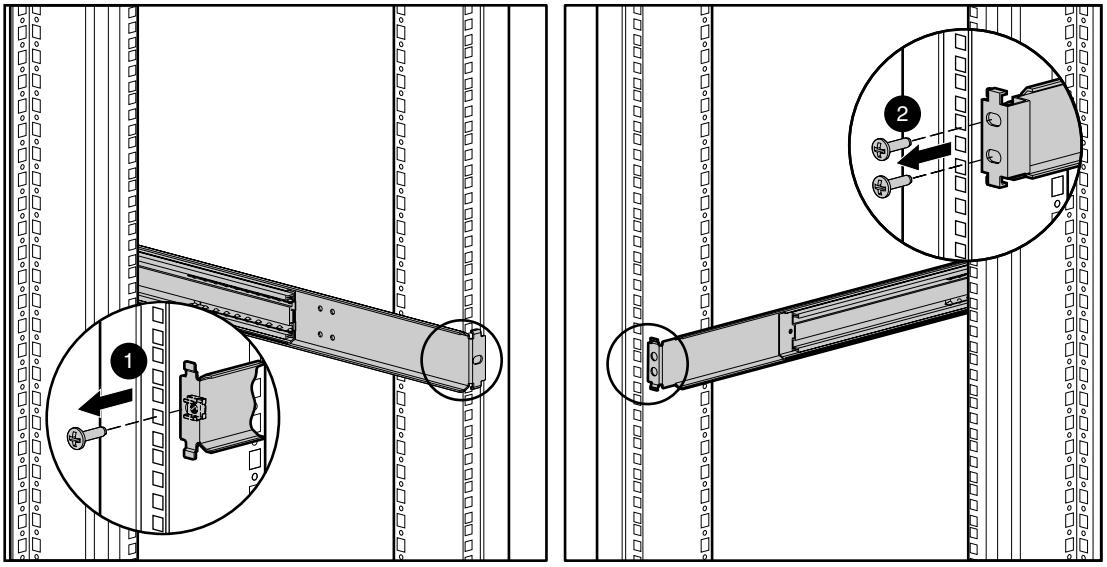

Figure 3-17: Removing the mounting rails w/slides

To replace the mounting rails w/slides, reverse the above procedure.

SPS-CORD, AC PWR, 10’, BLK 255135-XXX

Table 3-1: Cords

Cord Spare Kit Number	Cord Spare Kit Description
255135-001	SPS-CORD, AC PWR, 10’, BLK
255135-021	SPS-CORD, AC PWR, 10’, BLK-EURO
255135-031	SPS-CORD, AC PWR, 10’, BLK
255135-061	SPS-CORD, AC PWR, 10’, BLK
255135-111	SPS-CORD, AC PWR, 10’, BLK
255135-291	SPS-CORD, AC PWR, 10’, BLK

4

Specifications

Table 4-1: TFT5110R Specifications

Monitor		
	Type	Flat panel, active matrix TFT LCD
	Viewable Image Size	38.1 cm (15 inches)
	Face Treatment	Transparent protector with anti-glare coating
Maximum Weight (unpacked)		4.8 kg (10.6 lbs)
Maximum Dimensions		
	Height	3.02 cm (1.19 inches)
	Depth	40.05 cm (15.75 inches)
	Width	42.06 cm (16.56 inches)